



UF/IFAS Extension Florida 4-H Youth Development

# 2025 Insectathon

# Handbook

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# Insectathon Contests

- **Insect Collection Contest**

The Insect Collection Contest will have divisions for Specialty and General collections, at the level of Cloverbuds, Juniors, Intermediates, and Seniors. As well as a First-year collection for the Intermediate and Senior levels who have not previously submitted a collection to this contest.

- **Insect Art Contest**

The Insect Art Contest is for 4-Hers to create art about entomology or made with insects. Art can take any form. Some examples would be posters, photography, painting, or jewelry. Be creative! Participants can enter up to two art entries.

- **Entomology ID & Skillathon Contest**

The 4-H Entomology ID & Skillathon Contest provides 4-H youth with opportunities to test their knowledge of entomology. Contest stations include insect identification, insect damage, multiple choice questions on special topics, and insect collection judging. Seniors also participate in a quiz bowl if enough teams are present.

Day of the Contest Agenda (2025 agenda)

- 8:00 Room 1031 - Check in art and collections
- 8:30 Lobby – Registration/Volunteer check in
- 8:30 Lobby - Insect Zoo
- 8:30 Room 1027 - Senior Presentations Educational Box
- 9:00 Welcome message - Courtyard
- 9:30 Skillathon starts (see below time chart)
- 12:00 Skillathon ends (see below time chart)
- 12:00 Room 3118 – Senior quiz bowl – Seniors Only
- 12:30 Courtyard or Natural Area Teaching Lab – Lunch
- ~2:00 Courtyard – Awards

ID Room is room #2218

Damage room is room #2216

Special topics is room #3118

Collection judging is room #1027

GROUP A	GROUP B	GROUP C	GROUP D
<b>ID ROOM</b> 9:30-10:30	<b>ID ROOM</b> 9:30-10:30	<b>DAMAGES</b> 9:30-9:55	<b>SPEC-TOP</b> 9:30-9:55
		<b>SPEC-TOP</b> 9:55-10:20	<b>COLLECTIONS</b> 9:55-10:20
		<b>COLLECTIONS</b> 10:20-10:45	<b>DAMAGES</b> 10:20-10:45
<b>BREAK</b> 10:30-10:45	<b>BREAK</b> 10:30-10:45	<b>BREAK</b> 10:45-11:00	<b>BREAK</b> 10:45-11:00
<b>DAMAGES</b> 10:45-11:10	<b>SPEC-TOP</b> 10:45-11:10	<b>ID ROOM</b> 11:00-12:00	<b>ID ROOM</b> 11:00-12:00
<b>SPEC-TOP</b> 11:10-11:35	<b>COLLECTIONS</b> 11:10-11:35		
<b>COLLECTIONS</b> 11:35-12:00	<b>DAMAGES</b> 11:35-12:00		

Not participating in the ID Contest? You can volunteer! You may not enter the contest area during the contest unless you are participating or volunteering in the contest.

If you are interested in volunteering at the contest, we need:

- Readers
  - Assigned to a specific youth and remain with them through the duration of the contest
  - Provide support with reading and ensure writing correctly
  - Read options but do not answer question or provide hints at answers
  - May not read for youth in own county
- Scorers
  - Will be assigned to the scoring room for the duration of the contest
  - Ideally should have prior scoring experience, but not required

**Photography is strictly forbidden in all contest rooms before, during, and after the contest.**

# Florida 4-H Insect Collection Contest

**The Insect Collection Contest will be held during the Insectathon Event.**

In this project, you will discover the world of insects. Each year you will display a collection of insects.

## Registration

Register at Florida 4-H Online. You do not have to attend to submit a collection. However, you are responsible for ensuring your collection is present for the state level event. Please work with your county extension agent or your 4-H leader to coordinate dropping off and picking up your collection.

There will be a 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> place winner for General and Specialty for Juniors, Intermediates, and Seniors. In addition, First Year collection awards vary based off of number of entries.

## General Rules

1. Collect, properly mount, and label **the minimum number of different insects**.
2. You are allowed to collect specimens out of state, but not out of country.
3. Ensure you can legally collect in the areas you collect (no state or national parks).
4. You may include insects you collected for previous events.
5. All collections **MUST** have a collection index.
6. You will use only adult insects in your insect collections. No juvenile insects.
7. Only one of each insect should be included unless the male and female are significantly different (exhibit sexual dimorphism).
8. Insects must be pinned using "Insect Pins" from an entomological supply company. These pins are narrower, sharper, and treated so they will not rust.
9. You may only use insects you collected personally. No trading of insects is allowed.
10. You **MAY NOT** use insects that have been purchased from anyone else. Judges can easily detect these specimens and will **DISQUALIFY** your collection!
11. In your box, place a small card with your name, club, and county in the lower right-hand corner. If you are a first-year entomology project intermediate or senior, please indicate this on your card.

The Insect Collecting 101 guidelines will show you how to make your collection look like a professional collection! Other pinning tips may be found in various entomology books such as Peterson's Field Guide.

**Insect Collecting 101:** [http://entnemdept.ufl.edu/bug\\_club/ent-events/collecting101.shtml](http://entnemdept.ufl.edu/bug_club/ent-events/collecting101.shtml)

## Hints for Making a Winning Collection

### Diversity:

- Collect a variety of insects that show variations within an order. For example, grasshoppers, crickets and katydids. Keep the collection in balance; do not have it top-heavy with one order such as Lepidoptera. Get as many orders as you can.

### Organization:

- Remember that arrangement in the box is very important. If possible, group each order in a rectangular area below a single order label, arranging the specimens in neat straight rows.
- Specimens should be organized on phylogenetic or alphabetical order (Match the order you use for your collection index)

### Insect Quality:

- Avoid damaged specimens if possible.
- Arrange the legs of larger insects so that they are in a natural position.
- Be as accurate as you can in identifying insects to order and to family name (Family name is optional for juniors).
- Glue may be used to reattach insect appendages if desired.

### Pinning quality:

- Spread the wings of Lepidoptera (butterflies and moths) and Odonata (dragonflies and damselflies) correctly and uniformly for ages 9 and up.
- Be sure all insects are pinned correctly (see insect collecting 101 webpage). Ensuring that they are the same height on the pins and are not crooked.
- Use uniform labels, placed at the same height on the pins, and not crooked.
- Secure any specimens in alcohol vials with multiple pins to prevent the vials from damaging other specimens.
- It's recommended to use cardstock for labels. Labels should be the same size, same font (4pt Arial font), and face the same direction (right). (For more information, read the Insect collecting 101 webpage)

### General:

- Refer to the scorecard which will show you the point value of items the judges consider when looking at your collection
- Do not re-label and use insects that have been in another person's collection. Do not purchase insects from supply houses. Judges can easily detect such specimens and **WILL DISQUALIFY** the **ENTIRE** collection.
- You can exhibit insects from another state if you collect them yourself and if you label them correctly as to state, county and date.
- **If any of your specimens are preserved in vials, do NOT include them in the collection, please put them in a separate box or bin and clearly label them. This is to prevent your specimens from being damaged if a vial shifts in your box.**

***TIP: Focus on your pinning technique!***

## Collection Index

A list must be submitted with the insect collection (see example below).

The order level of this list should match the organization of your collection. (orders should be in the same order as they are on the index)

For juniors, this list should include Names and Number of specimens per order. For intermediates and seniors, this list should include Names and Number of specimens per Order and Family.

Specimens should be listed in phylogenetic order. The phylogenetic order allows students to see a progression of morphological specialization across Insecta and helps when grading collections (see next page for phylogenetic order list)

### *Example Contents List*

Order Name	# families.	Family Name	# individuals.
Blattodea	2	Blaberidae	1
		Blattidae	2
Hymenoptera	5	Formicidae	1
		Apidae	3
		Sphecidae	2
		Ichneumonidae	1
		Vespidae	5

### **Organization**

Orders should be arranged in phylogenetic order. All specimens in an order should be grouped under a header label.

### **Grading**

Collections will be awarded 2 points for each order and 1 point for each family. (For Juniors, points are not awarded for Family identification, as that is not included in their requirements)

## Insect Orders

### Phylogenetic Index Order

1. Collembola – Springtails
2. Protura – Proturans
3. Diplura – Diplurans
4. Archaeognatha – Bristletails
5. Zygentoma – Silverfish & Firebrats
6. Odonata – Dragonflies & Damselflies
7. Ephemeroptera – Mayflies
8. Orthoptera – Grasshoppers, Crickets, & Katydid
9. Phasmatodea – Walkingsticks & Leaf insects
10. Embioptera – Webspinners
11. Grylloblattodea – Icecrawlers
12. Mantophasmatodea – Gladiators
13. Plecoptera – Stoneflies
14. Dermaptera – Earwigs
15. Zoraptera – Angel Insects
16. Mantodea – Mantids
17. Blattodea – Cockroaches & Termites
18. Psocoptera – Booklice & Barklice
19. Phthiraptera – Lice
20. Thysanoptera – Thrips
21. Hemiptera – True Bugs
22. Hymenoptera – Ants, Bees, & Wasps
23. Strepsiptera – Twisted-winged parasites
24. Coleoptera – Beetles
25. Neuroptera – Antlions, Lacewings, & Owlflies
26. Megaloptera – Dobsonflies
27. Raphidioptera – Snakeflies
28. Trichoptera – Caddisflies
29. Lepidoptera – Butterflies & Moths
30. Diptera – Flies
31. Siphonaptera – Fleas
32. Mecoptera – Scorpionflies

Phylogenetic index resource: Advances in Insect Phylogeny at the Dawn of the Postgenomic Era (Michelle D. Trautwein, Brian M. Wiegmann, Rolf Beutel, Karl J. Kjer, David K. Yeates, 2012)



# Cloverbud Division

- Cloverbuds may submit 1-5 insects pinned or on cotton batting in a cardboard box.
- Cloverbuds collection is a participatory contest and will not be judged competitively.

4-H Insect Collection Competition – CLOVERBUD Collection Scorecard		
Name:	County:	4-H Age

Collection Criteria	Remarks
1-5 Specimens – pinned or on cotton batting:	
Collection in a box:	
Identification (optional):	
General appearance of collection:	

Judge's comments:

# Junior Division

Juniors may use Cornell drawers, insect boxes (usually black cardboard boxes with clear tops), or White cardboard insect boxes.

Junior winners will be determined by:

- Insect identification
- Pinning technique
- Labeling quality

Age requirements will be taken into consideration in judging.

Identify each insect by order and its common name or the true scientific family name (insect family common names such as: stink bug for Pentatomidae; blister beetle for Meloidae; bee for Apidae; or muscid fly for Muscidae are acceptable).

If you plan to compete in higher levels (intermediate, senior). It is highly encouraged to identify to family name to avoid relabeling later.

Collections will be awarded 2 points for each order correctly identified.

Note: Common or species name are not required in the intermediate and senior levels.

4-H Age	Display	Maximum # of Boxes
8	Minimum 10 insects	Cornell drawer – 1 Insect box – 1 White box – 2
9	Minimum 20 insects	Cornell drawer – 1 Insect box – 1 White box – 2
10	Minimum 30 insects	Cornell drawer – 1 Insect box – 2 White box – 3

4-H Insect Collection Competition – JUNIOR Collection Scorecard		
Name:	County:	4-H Age

May use Cornell drawers (maximum 1 box), insect display boxes (maximum 1 box), or white insect boxes (maximum 2 boxes)

*Junior winners are determined by: insect identification, pinning technique, and labeling quality.*

Collection Criteria		Possible Points	Points Awarded	Remarks
Proper Number of Specimens		25		
age/# of specimens	# of specimens in collection			
8 years old = 10 specimens				
9 years old = 20 specimens				
10 years old = 30 specimens				
Specimens properly pinned and labeled (Ages 9 and 10 Lepidopterans spread properly.)		25		
Specimens Properly Identified				
# of properly identified ORDERS in collection				
	x 2 pts each			
General appearance of collection		25		
		<b>TOTAL</b>		

Judge's comments:

# Intermediate Division

Intermediates may use Cornell drawers, insect boxes, or white cardboard boxes.

Intermediate winners will be determined by:

- Insect identification
- Collection diversity
- Pinning technique
- Labeling quality

Age requirements will be taken into consideration in judging.

Collections will be awarded 2 points for each order identified and 1 point for each family identified.

Note: Common or species name are not required in the intermediate and senior levels.

4-H Age	Display	Maximum # of Boxes
11	Minimum 40 insects	Cornell drawers – 2 Insect boxes – 3 White boxes – 4
12	Minimum 50 insects	Cornell drawers – 2 Insect boxes – 3 White boxes – 4
13	Minimum 60 insects	Cornell drawers – 2 Insect boxes – 3 White boxes – 4

## 4-H Insect Collection Competition – INTERMEDIATE Collection Scorecard

Name:	County:	4-H Age	First Year Collection?  Yes      No
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May use Cornell drawers (maximum 2 boxes), insect display boxes (maximum 2 boxes), or white insect boxes (maximum 4 boxes).

*Intermediate winners are determined by: insect identification, collection diversity, pinning technique, and labeling quality.*

Collection Criteria	Possible Points	Points Awarded	Remarks	
Proper Number of Specimens	25			
age/# of specimens				
# of specimens in collection				
11 years old = 40 specimens				
12 years old = 50 specimens				
13 years old = 60 specimens				
Specimens properly pinned, mounted (spread) and labeled	25			
All specimens properly identified with order and family names				
# of ORDERS in collection				
				x 2 pts each
# of FAMILIES in collection				
	x 1 pts each			
General appearance of collection	25			
<b>TOTAL</b>				

Judge's comments:

# Senior Division

Seniors **must use Cornell drawers.**

Senior winners will be determined by:

- Insect identification (to order and family, no species name required)
- Collection contents list (alphabetic or phylogenetic order)
- Collection diversity
- Pinning technique
- Labeling quality
- Presentation quality
- Educational box innovativeness

Age requirements will be taken into consideration in judging.

4-H Age	Display	Maximum # of Boxes
14	Minimum 70 insects	Cornell Drawers - 3
15	Minimum 80 insects	Cornell Drawers - 3
16	Minimum 90 insects	Cornell Drawers - 3
17-18	Minimum 100 insects	Cornell Drawers - 3

### 4-H Insect Collection Competition – Senior Collection Scorecard

Name:	County:	4-H Age	First Year Collection?  Yes      No
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Maximum number of boxes is 3. Cornell drawers required.

*Senior winners are determined by: insect identification, collection diversity, pinning technique, labeling quality, presentation quality, and educational box innovativeness.*

4-H Insect Collection Competition – Senior Collection Scorecard			
Collection Criteria	Possible Points	Points Awarded	Remarks
Proper Number of Specimens	25		
age/# of specimens required			
# of specimens in collection			
14 years old = 70 specimens			
15 years old = 80 specimens			
16 years old = 90 specimens			
17-18 years old = 100 specimens			
Specimens properly pinned, mounted (spread) and labeled	25		
All specimens properly identified with order and family names			
# of ORDERS in collection			
	x 2 pts each		
# of FAMILIES in collection			
	x 1 pts each		
General appearance of collection	25		
<b>TOTAL</b>			

Judge's comments:

# Senior Presentation:

Senior presentation (Required for scholarship eligibility):

- Create a collection box based off of an educational theme of your choice (minimum 10 insects for educational collection box)
- Develop a printed PowerPoint about the theme to submit with their box
- Present the educational collection box and PowerPoint in front of a panel of judges
- Presentations should be 5-12 minutes and will follow the Florida 4-H Demonstrations and Illustrated Talks guidelines.

Hints For MAKING A Winning Senior presentation (Seniors only)

- Refer to the score card which will show you the point value of things the judges consider when looking at your box.
- Do not try to teach more than one lesson with each box.
- Place a heading in the box and arrange materials so that anyone looking at the box can get the general idea of what it is all about at first glance. Prepare the display so that it will tell its story without too much reading. Don't expect anyone looking at the box to try to "figure out" what it means.
- Be sure your information is scientifically accurate.
- Try to be original.
- Be neat and careful and try to make your workmanship of high quality. Dress up your display so that it has "eye appeal."

Presentation educational box requirements:

- Maximum 1 box
- 10 specimens minimum

See the scoresheet below for further information.



### 4-H Insect Collection Competition – SENIOR Presentation & Educational Box Scorecard

Name:	County:	4-H Age
Educational Theme:		

Presentation Criteria	Possible Points	Points Awarded	Remarks
The 4-H Member			
<b>Appearance &amp; Poise:</b> Neat, well-groomed, good posture, appropriately dressed for task being performed. Calm, pleasant, confident; keeps composure when something appears to go wrong or does go wrong. Self-assured, yet pleasant manner.	4		
<b>Voice &amp; Grammar:</b> Distinct, forceful, yet natural. Clear voice with distinct enunciation and reasonably strong. Enthusiastic. Correct, well-chosen words. Not memorized. Use correct grammar with clear meaning.	4		
Organization & Presentation			
<b>Introduction:</b> Effective, interesting. Brief explanation of the presentation, with introduction of the 4-Her. Introduces main points of presentation. Gets the attention of the audience.	2		
<b>Arrangement &amp; Use of Equipment:</b> Right equipment for the job. Uses it correctly. Audience can see what he/she is doing.	2		
<b>Visual Aids:</b> Equipment, models, charts, and supplies effective and well arranged. Chose the teaching aid to best tell the story. Charts and models neat, concise, large enough, and appropriate. Visual aids utilized in presentation	2		
<b>Logical Sequence:</b> Well organized, clear, logical steps. Evidence shows the 4-Her has planned presentation.	2		
<b>Ability to Work Easily &amp; Efficiently:</b> Steps, illustrative material, and explanation coordinated. Talks about what he/she is showing and explains the procedure. Information given fills time during the process or is related to what is being shown.	2		

<b>Summary:</b> Key points summarized. Reliable sources used and cited.	2		
Subject Matter			
<b>Accurate, Up-to-Date, &amp; Complete:</b> Information is correct and current. All the steps in the process shown.	5		
<b>Degree of Difficulty:</b> Material sufficiently challenges the 4-Her – age and/or skill level.	5		
<b>Knowledge of Subject &amp; Related Skills:</b> Understands principles and practices presented. Questions adequately answered.	5		
Time			
Presentation falls out of allotted time (negative 5 points) (allotted time is 5-12 minutes)	-5		
Collection			
Quality of educational box & theme creativity	25		
<b>TOTAL</b>	<b>60 Possible</b>		

**Judge's Comments:**

# First Year Collection Division

For intermediate and senior members who are competing in the collection contest for the first time.

Follows guidelines for general collections, however there is no minimum number of specimens required.

Collections may be displayed in the following options:

- Cornell drawers (maximum 3)
- Black top or glass top black cardboard boxes (maximum 3)
- White cardboard Insect boxes (maximum 6)

Ensure that you indicate "FIRST YEAR" on your collection sheet and collection.

Awards will be based upon the number of entries received.

# Specialty Collection Division

Participants must use **wooden glass top drawers** of any size.

The specialty collection division will allow 4-H members to demonstrate knowledge in a specific entomology area. The specialty collection could be based on a specific order (Lepidoptera, Coleoptera, etc.), could show specific insect damage (insects that damage vegetable crops), could be based on environment (insects of upland hardwood ecosystems), could show invasive insects or non-insect arthropods, or more. This collection will be accompanied by an essay that explains why this collection was chosen and what was learned while creating the collection.

**Specialty collections for all ages will have a minimum of 10 specimens.**

Juniors

- Essays should include 3 paragraphs and a minimum of 150 words.

Intermediates

- Essays should include 4 paragraphs and a minimum of 300 words.

Seniors

- Essays should include 5 paragraphs and a minimum of 500 words.

4-H age winners will be determined by:

- Insect identification
- Collection diversity
- Pinning technique
- Labeling quality
- Collection innovativeness
- Uniqueness
- Essay

4-H Insect Collection Competition – SPECIALTY Collection Scorecard		
Name:	County:	4-H Age
Specialty Collection Title:		

100 possible points (75 collection points + 25 essay points).

Any size wooden, glass-topped box is appropriate. Minimum 10 insects.

*Age winners are determined by: insect identification, collection diversity, pinning technique, labeling quality, presentation quality, collection innovativeness, uniqueness, and essay.*

Collection Criteria	Possible Points	Points Awarded	Remarks
<b>Essay</b>			
Choice of theme: topic appropriate	5		
Organization of thought: introduction is compelling, main points reached, conclusion included	10		
Grammar, spelling, and meets essay minimum requirements <ul style="list-style-type: none"> <li>• Juniors = 150 words, 3 paragraphs</li> <li>• Intermediates = 300 words, 4 paragraphs</li> <li>• Seniors = 500 words, 5 paragraphs</li> </ul>	10		
<b>Collection</b>			
Collection diversity	10		
Specimens properly pinned, mounted (spread) and labeled	20		
Specimen identification	30		
Quality and general appearance of specialty collection box	15		
<b>TOTAL</b>	<b>100</b>		

# Florida 4-H Insect Art Contest

## 4-H Insectathon Art Competition

All art must be the work of the participant and must be insect related. Art can take any form. Some examples would be posters, photography, painting, or jewelry. Be creative! The use of insect products is encouraged (wings or other body parts, beeswax, cochineal, silk, etc.) Each participant may submit two entries. Awards are presented for 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> for each age category. Cloverbuds will receive participation ribbons instead. Only one artwork submitted per participant will be eligible for awards, the highest point will be considered.

Please include a title and description of the art along with the participant's name, age and county.

See scoresheet for grading criteria.

# 4-H Insectathon Art Competition Score Sheet

All art must be the work of the participant and must be insect related. The use of insect products (wings or other body parts, beeswax, cochineal, silk, etc.) is encouraged. Each participant may submit two entries. Please include a title and description of the art along with the participant's name, age, and county.

Name:	County:	4-H Age:
4-H Division (circle one):  Cloverbud          Junior  Intermediate      Senior	Artwork Title:	
Artwork Description:		

Criteria	Possible Points	Points Awarded	Remarks
Quality of Presentation	20		
Visual Impact	20		
Creativity	20		
Uniqueness	20		
Related to Entomology	20		
<b>Total</b>	<b>100</b>		

Additional Comments:

# Florida 4-H Insect ID & Skillathon Contest

The Insect ID & Skillathon Contest is composed of 4 stations and helps youth to demonstrate their knowledge of the world of entomology.

## **Who Can Compete in the Entomology ID & Skillathon Contest?**

Participation is open to all 4-H club members, special interest groups, or school enrichment groups. The only requirement is that all youth be enrolled in 4-H.

**Three 4-H age divisions compete:** Juniors, Intermediates, and Seniors. Juniors must be between the ages of 8 and 10, Intermediates between 11 and 13, and Seniors between 14 and 18 by September 1st of the current program year.

Each county may send up to two teams plus two individuals in each 4-H age level to compete in the state event. A total of 30 youth may represent each county. Teams consist of 3-4 members.

All levels will compete in the same 4 sections of the contest, but each age division will have different sets of study materials. Where possible, contest materials will be tailored to fit each age division.



# Contest Stations

## **Station 1:** *Insect & Non-Insect Arthropod Identification*

- Time: 60 minutes
- Identify insects and non-insect arthropods and answer questions about each specimen (based on the PowerPoint in the study materials).

## **Station 2:** *Insect Damage*

- Time: 20 minutes
- Identify damage to vegetables, fruits, trees, plants, people, animals, houses/structures and determine the insect causing the damage.

## **Station 3:** *Entomology Special Topic*

- Time: 20 minutes
- Participants will answer a multiple-choice quiz about the topic for the given year.
- Topics included will be Pollinators (2024, 2028, 2032), Asian Citrus Psyllid (2025, 2029, 2033), Biological Control (2026, 2030, 2034), MythBUGsters (2027, 2031, 2035)
- See topic details further down

## **Station 4:** *Collection Judging*

- Time: 20 minutes
- Participants will have to judge 4 collections. Participants will rank the boxes from 1 (best) to 4 (worst) and provide a written reason for their placement based on their age level.

## **Station 5:** *Senior Quiz Bowl (seniors only)*

- Senior teams will participate in a quiz bowl about entomology subjects.
- Questions will be taken from a variety of materials, as outlined in the station guidelines.

# Station 1:

## Insect & Non-Insect Arthropod Identification

### Guidelines and Study Guide

Time: 60 minutes

Participants will identify insects and non-insect arthropods. They will also use their knowledge about insect families, vocabulary, scientific names, insect parts, and more to answer practical questions.

This section is based on the following file:

<https://florida4h.ifas.ufl.edu/media/florida4hifasufledu/docs/event-files/sciencex2fanimal-science-/insectathon/Insectathon-ID-NEW-DESIGN-2024.pdf>

- Juniors will have 15 stations. At each station they will ID an insect and answer a multiple-choice question about that insect.
- Intermediates will have 25 stations. At each station they will ID an insect and answer a multiple-choice question about that insect.
- Seniors will have 35 stations. At the first 25 stations they will ID an insect and answer a multiple-choice question about that insect. At the final 10 stations, they will ID an insect and answer a fill in the blank question about that insect.

### Insects

	Juniors (ID 15 of 52)	Intermediates (ID 25 of 86)	Seniors (ID 35 of 124)
Blattodea			
Palmetto Cockroach	X	X	X
Subterranean Termite		X	X
Coleoptera			
Prionus Long-horned Beetle		X	X
Long-horned Beetle	X	X	X
Water Scavenger Beetle	X	X	X
Predacious Diving Beetle		X	X
Caterpillar Hunter			X
Bess Beetle	X	X	X
Eyed Click Beetle			X
Palm Weevil			X
Carrion Beetle		X	X
Burying Carrion Beetle		X	X
June (or May) Beetle	X	X	X
Grape Pelidnata	X	X	X
Phanaeus Dung Beetle			X
Canthon Dung Beetle		X	X
Net-winged Beetle			X
Metallic Wood-boring Beetle			X
Lady Bird Beetle	X	X	X
Ground Beetle	X	X	X
Tiger Beetle		X	X
Blister Beetle			X
Dermaptera			
Earwig	X	X	X
Diptera			
Horse Fly	X	X	X
Bee Fly			X
Syrphid Fly			X
Robber Fly		X	X
Tachinid Fly			X
Soldier Fly		X	X
Flesh Fly			X
House Fly	X	X	X
Blow Fly			X
Deer Fly		X	X
Hemiptera			
Giant Water Bug	X	X	X
Wheel (Assassin) Bug			X
Leaf-footed Bug	X	X	X
Green Stink Bug	X	X	X

Back Swimmer			X
Water Scorpion	X	X	X
Cicada	X	X	X
Treehopper			X
Leafhopper		X	X
Two-lined Spittlebug		X	X
Hymenoptera			
Bumble Bee	X	X	X
Carpenter Bee	X	X	X
Honey Bee	X	X	X
Halictid Bee			X
Cicada Keller Wasp			X
Polistes Paper Wasp		X	X
Thread-waisted Wasp			X
Mud Dauber Wasp	X	X	X
Scoliid Wasp			X
Ichneumon Wasp			X
Bald-faced Hornet		X	X
Yellowjacket Wasp	X	X	X
Velvet Ant	X	X	X
Lepidoptera			
Giant Swallowtail	X	X	X
Laurel (Palemedes) Swallowtail			X
Tiger Swallowtail		X	X
Tiger Swallowtail (Dark Morph)		X	X
Spicebush Swallowtail		X	X
Black (American) Swallowtail		X	X
Blue (Pipevine) Swallowtail		X	X
Zebra Swallowtail			X
Gulf Fritillary	X	X	X
Zebra Longwing	X	X	X
Monarch	X	X	X
Viceroy	X	X	X
Red-Spotted Purple	X	X	X
Tawny Emperor		X	X
Hackberry Butterfly			X
Red Admiral		X	X
American Painted Lady		X	X
Buckeye Butterfly			X
Barred Sulfur (Summer Form)		X	X
Barred Sulfur (Winter Form)		X	X
Cloudless Sulfur	X	X	X
Little Sulfur			X

European Cabbage Butterfly			X
Checkered White		X	X
Silver-spotted Skipper			X
Long-tailed Skipper	X	X	X
Polyphemus Moth	X	X	X
Luna Moth	X	X	X
Tobacco Hornworm Moth			X
Io Moth		X	X
Underwing Moth			X
Polka-dot Wasp Moth		X	X
Eastern Tent Caterpillar Moth		X	X
Clearwing Sphinx Moth			X
Mantodea			
Praying Mantis	X	X	X
Megaloptera			
Dobsonfly			X
Neuroptera			
Antlion Adult		X	X
Owlfly			X
Green Lacewing		X	X
Odonata			
Green Darner Dragonfly	X	X	X
Ebony Jewelwing Damselfly	X	X	X
Orthoptera			
Lubber Grasshopper		X	X
American Grasshopper	X	X	X
Katydid	X	X	X
Mole Cricket	X	X	X
Field Cricket	X	X	X
Phasmatodea			
Florida Walkingstick	X	X	X
Non- Insect Arthropods			
Arachnida			
Jumping Spider	X	X	X
Crab Spider	X	X	X
Golden Silk Spider	X	X	X
Spiny Orb-weaver			X
Black and Yellow Argiope Spider			X
Green Lynx Spider			X
Wolf Spider	X	X	X
Long-jawed Orb-weaver		X	X
Brown Dog Tick	X	X	X
American Dog Tick			X
Black-Legged Tick			X

Lone Star Tick	X	X	X
Gulf Coast Tick		X	X
Mites			X
Daddy long-legs	X	X	X
Florida Bark Scorpion	X	X	X
Giant Whipped Scorpion (Vinegaroon)	X	X	X
Diplopoda			
Millipedes	X	X	X
Chilopoda			
Centipedes	X	X	X
Crustacea			
Sowbugs		X	X
Pillbugs	X	X	X

# Junior Arthropod & Non-Arthropod ID

Badge Number: \_\_\_\_\_

Total Score: \_\_\_\_\_ /30

**Instructions:** You will be identifying 15 arthropod and non-arthropod samples and answering knowledge skills for each station For each sample (15 stations/2 questions per station), find the correct species in the list below and write the **NUMBER** in the blank space and answer the question.

Question No.	Answer	Question No.	Answer
1A.	#	8B.	
1B.		9A.	#
2A.	#	9B.	
2B.		10A.	#
3A.	#	10B.	
3B.		11A.	#
4A.	#	11B.	
4B.		12A.	#
5A.	#	12B.	
5B.		13A.	#
6A.	#	13B.	
6B.		14A.	#
7A.	#	14B.	
7B.		15A.	#
8A.	#	15B.	

## Junior Arthropod & Non-Arthropod ID

**Instructions:** Use the list below during the contest to match the insect to the question number.

No.	Common Name	No.	Common Name
1	Palmetto Cockroach	27	Viceroy
2	Long-horned Beetle	28	Red-Spotted Purple
3	Water Scavenger Beetle	29	Cloudless Sulfur
4	Bess Beetle	30	Long-tailed Skipper
5	June (or May) Beetle	31	Polyphemus Moth
6	Grape Pelidnata	32	Luna Moth
7	Lady Bird Beetle	33	Praying Mantid
8	Ground Beetle	34	Green Darner Dragonfly
9	Earwig	35	Ebony Jewelwing Damselfly
10	Horse Fly	36	American Grasshopper
11	House Fly	37	Katydid
12	Giant Water Bug	38	Mole Cricket
13	Leaf-footed Bug	39	Field Cricket
14	Green Stink Bug	40	Florida Walkingstick
15	Water Scorpion	41	Jumping Spider
16	Cicada	42	Crab Spider
17	Bumble Bee	43	Golden Silk Spider
18	Carpenter Bee	44	Wolf Spider
19	Honey Bee	45	Brown Dog Tick
20	Mud Dauber Wasp	46	Lone Star Tick
21	Yellowjacket Wasp	47	Daddy Long-legs
22	Velvet Ant	48	Florida Bark Scorpion
23	Giant Swallowtail	49	Giant Whipped Scorpion (Vinegaroon)
24	Gulf Fritillary	50	Millipedes
25	Zebra Longwing	51	Centipedes
26	Monarch	52	Pillbugs



# Intermediate Arthropod & Non-Arthropod ID

Badge Number: \_\_\_\_\_

Total Score: \_\_\_\_\_ /50

**Instructions:** You will be identifying 25 arthropod and non-arthropod samples and answering knowledge skills for each station. For each sample (25 stations/2 questions per station), find the correct species in the list below and write the number in the blank space and answer the question.

Question No.	Answer	Question No.	Answer
1A.	#	13B.	
1B.		14A.	#
2A.	#	14B.	
2B.		15A.	#
3A.	#	15B.	
3B.		16A.	#
4A.	#	16B.	
4B.		17A.	#
5A.	#	17B.	
5B.		18A.	#
6A.	#	18B.	
6B.		19A.	#
7A.	#	19B.	
7B.		20A.	#
8A.	#	20B.	
8B.		21A.	#
9A.	#	21B.	
9B.		22A.	#
10A.	#	22B.	
10B.		23A.	#
11A.	#	23B.	
11B.		24A.	#
12A.	#	24B.	
12B.		25A.	#
13A.	#	25B.	

# Intermediate Arthropod & Non-Arthropod ID

**Instructions:** Use the list below during the contest to match the insect to the question number.

No	Common Name	No	Common Name	No.	Common Name
1	Palmetto Cockroach	30	Carpenter Bee	59	Polka-dot Wasp Moth
2	Subterranean Termite	31	Honey Bee	60	Eastern Tent Caterpillar Moth
3	Prionus Long-horned Beetle	32	Polistes Paper Wasp	61	Praying Mantid
4	Long-horned Beetle	33	Mud Dauber Wasp	62	Antlion
5	Water Scavenger Beetle	34	Bald-faced Hornet	63	Green Lacewing
6	Predacious Diving Beetle	35	Yellowjacket Wasp	64	Green Darner Dragonfly
7	Bess Beetle	36	Velvet Ant	65	Ebony Jewelwing Damselfly
8	Carrion Beetle	37	Giant Swallowtail	66	Lubber Grasshopper
9	Burying Carrion Beetle	38	Tiger Swallowtail	67	American Grasshopper
10	June (or May) Beetle	39	Tiger Swallowtail (Dark Morph)	68	Katydid
11	Grape Pelidnata	40	Spicebush Swallowtail	69	Mole Cricket
12	Canthon Dung Beetle	41	Black (American) Swallowtail	70	Field Cricket
13	Lady Bird Beetle	42	Blue (Pipevine) Swallowtail	71	Florida Walkingstick
14	Ground Beetle	43	Gulf Fritillary	72	Jumping Spider
15	Tiger Beetle	44	Zebra Longwing	73	Crab Spider
16	Earwig	45	Monarch	74	Golden Silk Spider
17	Horse Fly	46	Viceroy	75	Wolf Spider
18	Robber Fly	47	Red-Spotted Purple	76	Long-jawed Orb-weaver
19	Soldier Fly	48	Tawny Emperor	77	Brown Dog Tick
20	House Fly	49	Red Admiral	78	Lone Star Tick
21	Deer Fly	50	American Painted Lady	79	Gulf Coast Tick
22	Giant Water Bug	51	Barred Sulfur (Summer Form)	80	Daddy Long-legs
23	Leaf-footed Bug	52	Barred Sulfur (Winter Form)	81	Florida Bark Scorpion
24	Green Stink Bug	53	Cloudless Sulfur	82	Giant Whipped Scorpion (Vinegaroon)
25	Water Scorpion	54	Checkered White	83	Millipedes
26	Cicada	55	Long-tailed Skipper	84	Centipedes
27	Leafhopper	56	Polyphemus Moth	85	Sowbugs
28	Two-lined Spittlebug	57	Luna Moth	86	Pillbugs
29	Bumble Bee	58	Io Moth		

# Senior Arthropod & Non-Arthropod ID

Badge Number:

Total Score: /70

**Instructions:** You will be identifying 35 arthropod and non-arthropod samples and answering knowledge skills for each station. For each sample (35 stations/2 questions per station), find the correct species in the list below and write the number in the blank space and answer the question.

Question No.	Answer	Question No.	Answer
1A.	#	18B.	
1B.		19A.	#
2A.	#	19B.	
2B.		20A.	#
3A.	#	20B.	
3B.		21A.	#
4A.	#	21B.	
4B.		22A.	#
5A.	#	22B.	
5B.		23A.	#
6A.	#	23B.	
6B.		24A.	#
7A.	#	24B.	
7B.		25A.	#
8A.	#	25B.	
8B.		26A.	#
9A.	#	26B.	
9B.		27A.	#
10A.	#	27B.	
10B.		28A.	#
11A.	#	28B.	
11B.		29A.	#
12A.	#	29B.	
12B.		30A.	#
13A.	#	30B.	
13B.		31A.	#
14A.	#	31B.	
14B.		32A.	#
15A.	#	32B.	
15B.		33A.	#
16A.	#	33B.	
16B.		34A.	#
17A.	#	34B.	
17B.		35A.	#
18A.	#	35B.	

## Senior Arthropod & Non-Insect Arthropod ID

**Instructions:** Use the list below during the contest to match the insect to the question number.

<b>No</b>	<b>Common Name</b>	<b>No</b>	<b>Common Name</b>	<b>No.</b>	<b>Common Name</b>
1	Palmetto Cockroach	43	Two-lined Spittlebug	85	Tobacco Hornworm Moth
2	Subterranean Termite	44	Bumble Bee	86	Io Moth
3	Prionus Long-horned Beetle	45	Carpenter Bee	87	Underwing Moth
4	Long-horned Beetle	46	Honey Bee	88	Polka-dot Wasp Moth
5	Water Scavenger Beetle	47	Halictid Bee	89	Eastern Tent Caterpillar Moth
6	Predacious Diving Beetle	48	Cicada Killer Wasp	90	Clearwing Sphinx Moth
7	Caterpillar Hunter	49	Polistes Paper Wasp	91	Praying Mantid
8	Bess Beetle	50	Thread-waisted Wasp	92	Dobsonfly
9	Eyed Click Beetle	51	Mud Dauber Wasp	93	Antlion
10	Palm Weevil	52	Scollid Wasp	94	Owlfly
11	Carrion Beetle	53	Ichneumon Wasp	95	Green Lacewing
12	Burying Carrion Beetle	54	Bald-faced Hornet	96	Green Darner Dragonfly
13	June (or May) Beetle	55	Yellowjacket Wasp	97	Ebony Jewelwing Damselfly
14	Grape Pelidnata	56	Velvet Ant	98	Lubber Grasshopper
15	Phanaeus Dung Beetle	57	Giant Swallowtail	99	American Grasshopper
16	Canthon Dung Beetle	58	Laurel (Palamedes) Swallowtail	100	Katydid
17	Net-winged Beetle	59	Tiger Swallowtail	101	Mole Cricket
18	Metallic Wood-boring Beetle	60	Tiger Swallowtail (Dark Morph)	102	Field Cricket
19	Lady Bird Beetle	61	Spicebush Swallowtail	103	Florida Walkingstick
20	Ground Beetle	62	Black (American) Swallowtail	104	Jumping Spider
21	Tiger Beetle	63	Blue (Pipevine) Swallowtail	105	Crab Spider
22	Blister Beetle	64	Zebra Swallowtail	106	Golden Silk Spider
23	Earwig	65	Gulf Fritillary	107	Spiny Orb-weaver
24	Horse Fly	66	Zebra Longwing	108	Black and Yellow Argiope Spider
25	Bee Fly	67	Monarch	109	Green Lynx Spider
26	Syrphid Fly	68	Viceroy	110	Wolf Spider
27	Robber Fly	69	Red-Spotted Purple	111	Long-jawed Orb-weaver
28	Tachinid Fly	70	Tawny Emperor	112	Brown Dog Tick
29	Soldier Fly	71	Hackberry Butterfly	113	American Dog Tick
30	Flesh Fly	72	Red Admiral	114	Black-Legged Tick
31	House Fly	73	American Painted Lady	115	Lone Star Tick
32	Flow Fly	74	Buckeye Butterfly	116	Gulf Coast Tick
33	Deer Fly	75	Barred Sulfur (Summer Form)	117	Mites
34	Giant Water Bug	76	Barred Sulfur (Winter Form)	118	Daddy Long-legs
35	Wheel (Assassin) Bug	77	Cloudless Sulfur	119	Florida Bark Scorpion
36	Leaf-footed Bug	78	Little Sulfur	120	Giant Whipped Scorpion (Vinegaroon)
37	Green Stink Bug	79	European Cabbage Butterfly	121	Millipedes
38	Back Swimmer	80	Checkered White	122	Centipedes
39	Water Scorpion	81	Silver-spotted Skipper	123	Sowbugs
40	Cicada	82	Long-tailed Skipper	124	Pillbugs
41	Treehopper	83	Polyphemus Moth		
42	Leafhopper	84	Luna Moth		

## Station 2: Insect Damage Guidelines and Study Guide

Time: 20 minutes

Participants will identify insect-related damage. Damage has been split into two categories – ag-related pests and structural, medical, and veterinary pests.

- Juniors will have 8 questions.
- Intermediates will have 15 questions.
- Seniors will have 25 questions.

	Juniors (ID 8 of 10)	Intermediates (ID 15 of 20)	Seniors (ID 25 of 36)
<b>Ag-related Pests</b>			
Aphids		X	X
Armyworms			X
Asian Citrus Psyllid		X	X
Cabbage Looper			X
Colorado Potato Beetle			X
Corn Earworms			X
Cottonwood Leaf Beetle			X
Cowpea Cucurlio			X
Cucumber Beetle			X
Hornworms		X	X
Leaffooted Bug			X
Leafminer			X
Lesser Cornstalk Borer			X
Mole Cricket	X	X	X
Redbay Ambrosia Beetle	X	X	X
Small Hive Beetle	X	X	X
Southern Green Stinkbug	X	X	X
Southern Pine Beetle			X
Stem Maggot			X
Thrips		X	X
Twig Girdler		X	X
Velvetbean Caterpillar			X
Whiteflies	X	X	X
<b>Structural, Medical, and Veterinary Pests</b>			
Bed Bugs	X	X	X
Blister Beetles			X
Carpenter Bees			X
Fleas			X
Honey Bees	X	X	X
Horn fly		X	X
Human Head Lice	X	X	X

Mosquitoes	X	X	X
Mud Daubers		X	X
Red Imported Fire Ants		X	X
Saddleback Caterpillar		X	X
Screw Worm		X	X
Termites	X	X	X

**Instructions:** You will be identifying 8 insect damage samples. For each sample (8 stations), find the correct species in the list below and write the sample number in the blank space.

## Junior Insect Damage

Badge Number: \_\_\_\_\_

Total Score: \_\_\_\_\_ /8

Sample No.	Ag-related Pests
	Mole Cricket
	Redbay Ambrosia Beetle
	Small Hive Beetle
	Southern Green Stinkbug
	Whiteflies

Sample No.	Structural, Medical, and Veterinary Pests
	Bed Bugs
	Honey Bees
	Human Head Lice
	Mosquitoes
	Termites

**Instructions:** You will be identifying 15 insect damage samples. For each sample (15 stations), find the correct species in the list below and write the sample number in the blank space.

<b>Intermediate Insect Damage</b>	
Badge Number:	
Total Score:	/15

Sample No.	Ag-related Pests
	Aphids
	Asian Citrus Psyllid
	Hornworms
	Mole Cricket
	Redbay Ambrosia Beetle
	Small Hive Beetle
	Southern Green Stinkbug
	Thrips
	Twig Girdler
	Whiteflies

Sample No.	Structural, Medical, and Veterinary Pests
	Bed Bugs
	Honey Bees
	Horn Fly
	Human Head Lice
	Mosquitoes
	Mud Daubers
	Red Imported Fire Ants
	Saddleback Caterpillar
	Screw Worm
	Termites



**Instructions:** You will be identifying 25 insect damage samples. For each sample (25 stations), find the correct species in the list below and write the sample number in the blank space.

<b>Senior Insect Damage</b>	
Badge Number:	
Total Score:	/25

Sample No.	Ag-related Pests
	Aphids
	Armyworms
	Asian Citrus Psyllid
	Cabbage Looper
	Colorado Potato Beetle
	Corn Earworms
	Cottonwood Leaf Beetle
	Cowpea Cucurlio
	Cucumber Beetle
	Hornworms
	Leaf-footed Bug
	Leafminer
	Lesser Cornstalk Borer
	Mole Cricket
	Redbay Ambrosia Beetle
	Small Hive Beetle
	Southern Green Stinkbug
	Southern Pine Beetle
	Stem Maggot
	Thrips
	Twig Girdler
	Velvetbean Caterpillar
	Whiteflies

Sample No.	Structural, Medical, and Veterinary Pests
	Bed Bugs
	Blister Beetles
	Carpenter Bees
	Fleas
	Honey Bees
	Horn fly
	Human Head Lice
	Mosquitoes
	Mud Daubers
	Red Imported Fire Ants
	Saddleback Caterpillar
	Screw Worm
	Termites

## **Station 3: Specialty Topic Guidelines and Study Guide**

### **Station 3: Entomology Special Topic**

Time: 20 minutes

Participants will answer a multiple-choice quiz about the topic for the given year. The topics will rotate each year on a 4-year cycle.

The topics included will be:

- Pollinators (2024, 2028, 2032)
- Asian Citrus Psyllid (2025, 2029, 2033)
- Biological Control (2026, 2030, 2034)
- MythBUGsters (2027, 2031, 2035)

Each age category will have the following number of questions:

- Juniors – 10 multiple-choice
- Intermediates – 15 multiple-choice
- Seniors – 20 multiple-choice

Study Resources:

#### **Pollination**

[https://smithsonianeducation.org/images/educators/lesson\\_plan/partners\\_in\\_pollination/pollen.pdf](https://smithsonianeducation.org/images/educators/lesson_plan/partners_in_pollination/pollen.pdf)

#### **Asian Citrus Psyllid**

<https://gardeningolutions.ifas.ufl.edu/care/pests-and-diseases/pests/management/citrus-psyllid-wasp.html>

[https://ipm.ifas.ufl.edu/Agricultural\\_IPM/asian.shtml](https://ipm.ifas.ufl.edu/Agricultural_IPM/asian.shtml)

<https://entnemdept.ufl.edu/creatures/citrus/acpsyllid.htm>

#### **Biological Control**

<https://edis.ifas.ufl.edu/in1200>

<https://plants.ifas.ufl.edu/manage/control-methods/biological-control/>

<http://blogs.ifas.ufl.edu/marionco/2019/02/07/biological-control-pests/>

<https://www.fdacs.gov/Divisions-Offices/Plant-Industry/Bureaus-and-Services/Bureau-Of-Methods-Development-Biological-Control/Biological-Control>

#### **MythBUGsters**

<https://entnemdept.ufl.edu/pestalert/lovebug.htm>

<https://entnemdept.ufl.edu/creatures/misc/lovebug.htm>

<https://lancaster.unl.edu/pest/resources/347BBMyths.pdf>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8172003/>

<https://kids.niehs.nih.gov/topics/natural-world/wildlife/insects/cockroaches-facts>

## **Station 4:**

### **Collection Judging Guidelines and Study Guide**

Time: 20 minutes

Participants will have to judge 4 collections. Participants will rank the collections from 1 (best) to 4 (worst) and provide a written reason for their placement. Refer to the Collection Contest for information on how to judge a collection.

- Juniors will rank the 4 collections best to worst.
- Intermediates will rank the 4 collections best to worst. Then select one collection of the four and write 3-5 short comments for improvement on this collection.
- Seniors will rank the 4 collections best to worst. Then select one collection of the four and write 5-10 short comments for improvement on this collection.

Refer to [https://entnemdept.ufl.edu/bug\\_club/ent-events/collecting101.shtml](https://entnemdept.ufl.edu/bug_club/ent-events/collecting101.shtml) for information on pinning and labeling

**Instructions:** You will rank the collections best to worst.

# Junior Collection Judging

Badge Number:

Total Score: /20

## Rank the collections: A, B, C, D

1 is best, 4 is worst. Use capital letters.

1.

2.

3.

4.

## FOR JUDGE USE ONLY

Use the corresponding key to grade please.

\_\_\_\_\_ = \_\_\_\_\_

Collection Score (possible 20 pts.      Total Score

**Instructions:** You will rank the collections best to worst and provide critique comments on one collection

## Intermediate Collection Judging

Badge Number: \_\_\_\_\_

Total Score: \_\_\_\_\_ /25

### Rank the collections: A, B, C, D

1 is best, 4 is worst. Use capital letters.

- 1.
- 2.
- 3.
- 4.

### Critique Comments on One Collection

Provide comments for areas of improvement. Below are some suggested areas to provide comments in. You do not have to use all the comment areas. 3-5 comments for areas of improvement.

Selected Collection Letter (Circle)	A	B	C	D
<p><u>Example Categories:</u></p> <ul style="list-style-type: none"> <li>- How many different insects do they have? Many different ones or too many similar ones?</li> <li>- Are they properly pinned, spread, and labeled nicely?</li> <li>- Are they named properly?</li> <li>- Does the box look neat overall? Is it organized?</li> <li>-Anything else that helps you separate the boxes in terms of quality</li> </ul>				

### FOR JUDGE USE ONLY

Use the corresponding key to grade please.

\_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

Collection Score (possible 20 pts.)

Comment Score (possible 5 pts.)

Total Score

**Instructions:** You will rank the collections best to worst and provide critique comments on one collection

## Senior Collection Judging

Badge Number: \_\_\_\_\_

Total Score: \_\_\_\_\_ /30

### Rank the collections: A, B, C, D

1 is best, 4 is worst. Use capital letters.

- 1.
- 2.
- 3.
- 4.

### Critique Comments on One Collection

Provide comments for areas of improvement. Below are some suggested areas to provide comments in. You do not have to use all the comment areas. 5-10 comments for areas of improvement.

Selected Collection Letter (Circle)	A	B	C	D
Collection Diversity				
Specimens properly pinned, mounted (spread) and labeled				
Specimen Identification				
Quality and general appearance of specialty collection box				
Other				

### FOR JUDGE USE ONLY

Use the corresponding key to grade please.

\_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_  
 Collection Score (possible 20 pts.)      Comment Score (possible 10 pts.)      Total Score

## Station 5:

# Senior Quiz Bowl Guidelines and Study Guide

Suggested Study Resources:

- Insectathon study material and current pop culture knowledge
- *Bugs in the System* by May Berenbaum (*Note: This book was published in 1996. Many of the insect orders have been updated since then.*) (*link to book on Barnes & Nobel's website*  
<https://www.barnesandnoble.com/w/bugs-in-the-system-may-r-berenbaum/1100622839?ean=9780201408249>)
- *The Entomological Society of America's Entomology games* (*Questions from previous years here:*  
<https://www.entsoc.org/events/annual-meeting/entomology-games>)

**Rules may vary depending on the number of teams.**

Points are scored by correctly answering questions asked by the moderator. The two types of questions are Toss-ups and Bonuses with each question worth 10 points.

Each round begins with a Toss-up question. The first player to signal answers the question. He/she must do so without consultation with other team members. He/she must be recognized by the moderator as the eligible respondent prior to giving the answer. Repeated failure to be recognized by the moderator may result in turning the question over to the opposing team. If no player signals within 10 seconds of completion of the question, no points are awarded and, the next Toss-up question begins.

If a player answers a Toss-up correctly, the team is awarded 10 points and is given a chance at a Bonus question. All team members may confer on the answer to the Bonus question. The team's captain will act as spokesperson for the team, and his/her answer will be the official one. On the turnover, a player must signal and be recognized before answering. If a player answers a Toss-up incorrectly, the question is turned over to the other team without a deduction in score to the incorrect team. If answered correctly, 10 points are awarded.

A player may interrupt the moderator before a Toss-up question has been completely read by signaling. If a correct answer is given, the team scores 10 points and is given a chance at a Bonus question. If an incorrect answer is given, the team is penalized 5 points and the entire question is repeated for the other team. A correct answer by a member of the other team scores 10 points and a chance at a bonus question. Bonus questions are never eligible to be answered by the opposing team. Questions are read in their entirety only one time.

A game consists of 16 Toss-up questions. The team with the most points at the end of the game is the winner. If the score is tied at the end of the regulation game, the tie is broken by a sudden-death playoff. The first correct answer to a Tie-Breaker Toss-up question wins the game. An incorrect answer through an interruption (an answer given before a question is completely read) to a Tie-Breaker loses the game.